

## Dynamisation Improves Quality of Life

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### INTRODUCTION:

Primary fracture treatment using Ilizarov external fixator is rapidly gaining popularity. One of the indication for ilizarov external fixator application would be open comminuted fracture of lower limb. Dynamization means applied cyclic micro motion and progressive axial loading of fractures during the bone healing process to callus formation. We report a case of open comminuted fracture of right tibia with de-gloving wound over right knee in an early fifties gentleman.

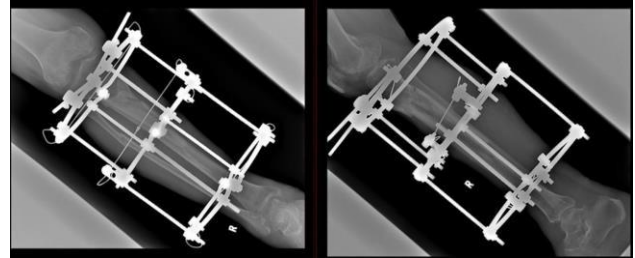
### REPORT:

An early fifties gentleman sustained open fracture of right tibia with de-gloving wound over right knee after involved in a motor-vehicle accident. A three-level ilizarov external fixation was applied over right tibia one week after debridement. He was discharged well and allow partial weight-bearing post-operation 1 month. However, on subsequent x-ray reviews during clinic, we noticed there were minimal callous formation. Hence, dynamization of iliarov was done by loosening second level ilizarov ring to allow more micro motion over fracture site (ring-block dynamization).

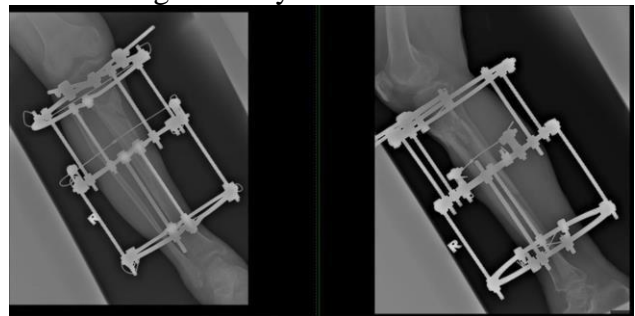
6-weeks post dynamization, on subsequent clinic visit, we notice there were increases in callosity and he was allowed for full weight-bearing. Throughout the process, he was pain-free over the fracture site.



**Figure 1:** Clinical picture, second level ring were loosened



2.1 : Pre ring-block dynamization



2.2 : 6-weeks post ring-block dynamization

**Figure 2:** Comparing pre-and post, the density of callosity increases

### CONCLUSION:

This preferred technique was described in a paper by Jabbar.Y.et.al, by loosening rods across fracture site, allows both dynamization across the fracture site to encourage callous maturation and aids assessment of union in order to plan frame removal.

### REFERENCES:

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